

SECTION 214 - THERMOPLASTIC REFLECTORIZED PAVEMENT MARKING

1. GENERAL

This specification covers thermoplastic materials suitable for use as reflecting pavement markings on bituminous pavement. Placement of thermoplastic reflectorized pavement marking material shall conform to the manufacturers recommendations or as directed by the Engineer.

2. MATERIALS

The materials shall be suitable for application by extrusion onto the pavement in molten form. Glass spheres shall be mixed into the molten material and also dropped into the material immediately after it is applied to the pavement. Upon cooling to normal pavement temperatures, this material shall produce an adherent reflectorized stripe of specified thickness and width and shall be capable of resisting deformation.

A. Thermoplastic Material and Premix Beads. This material shall comply with AASHTO M249-79 except that the chromaticity and luminance requirements in Section 4.3.1 shall apply.

The thermoplastic material shall be packaged in suitable containers to which it will not adhere during shipment and storage. The thermoplastic material may be furnished as either a cast block or as a granular form in bags. Bags may be heavy duty craft paper or may be of a material suitable for melting of the entire bag and contents. Meltable bags shall not result in an adverse effect on the thermoplastic material. Each container label shall contain the following information:

1. The color of the material
2. The name of the manufacture
3. The date of manufacture (month and year)
4. Batch number

B. Glass Beads for Top Application. The glass beads used for drop-on purposes shall be clean, solid, transparent and conform to the following requirements:

1. Gradation.

<u>Size of Sieve</u>	<u>Percent Passing</u>
No. 30	95-100
No. 40	40-60
No. 50	20-35
No. 80	0-5

2. Imperfect Beads. Not more than 30% shall be imperfect.

3. Moisture Resistance. Beads shall pass the moisture resistance-free flow test.

4. Index of Refraction. The beads shall have an index of refraction between 1.50 and 1.60 when tested by the oil immersion method under tungsten light at 25E C.

5. Packaging containers shall be leak-proof, moisture resistant and of sufficient strength to ensure safe delivery, handling, and storage of the beads prior to and during their use. For identification purposes each container shall be marked with a lot number assigned by the producer.

C. Binder-Sealer. The binder-sealer shall be a two-part epoxy resin material containing sufficient solvent so as to be sprayable and to dry rapidly. Other binder-sealers may be used if recommended by the manufacturer of the thermoplastic material. It shall be compatible with the pavement material and the thermoplastic materials and form a tight bond between the pavement and the thermoplastic material.

3. CONSTRUCTION

The pavement to be striped shall be broomed and cleaned prior to application as deemed necessary by the Engineer. Mixing and application of materials shall be in accordance with manufacturer's recommendations.